

REMARKS

Applicant respectfully asks for reconsideration of both this application and the Office Action dated October 8, 2004. A response to this Office Action was due by January 8, 2005. Accordingly, Applicant is concurrently submitting a Petition for a one month extension of time, together with authorization to charge the small entity Petition fee to Deposit Account No. 19-0733. It is believed that no other fees are due for the entry and consideration of this Amendment. If, however, the Commissioner believes that fees are required, the Commissioner is hereby authorized to charge any fees deemed necessary to maintain the pendency of this application, including any fees under 35 U.S.C. §1.16 and §1.17, to the deposit account of the undersigned, Deposit Account No. 19-0733. Please consider this Amendment as timely filed.

In the Office Action, the Examiner objected to the drawings for omitting the reference signs 105 ψ , 203 ψ , and 205 ψ . Similarly, the Examiner has objected to the specification for omitting a description of the items 105 ϕ , 203 ϕ , and 205 ϕ shown in the drawings. Applicant respectfully traverses this objection, and urges its reconsideration.

Applicant respectfully submits that the Examiner has confused the Greek letter “psi,” (represented by the character “ ψ ”) referenced in the Office Action with the Greek letter “phi” (represented by the character “ ϕ ”). Both the text of the application and the drawings employ the character “phi” to represent an unspecified iteration of items 105, 203 and 205. While the specification and drawings use slightly different fonts for the letter “phi,” Applicant respectfully submits that someone of ordinary skill in the art would appreciate that both use the same references. The character “psi,” on the other hand, is not used in either the drawings or the

specification. To further illustrate conventional uses of the letter “phi,” Applicant has attached hereto a list of Greek letters showing both fonts for the character “phi” in this application.

Applicant therefore asks that this objection to the drawings be withdrawn.

Next, the Examiner objected to Figure 1, and required that this figure be amended to include the term “Prior Art.” Applicant has made the required revision herein, and therefore asks that this rejection be withdrawn.

Claims 1-8, 13-15, 20-24, 27-35, 40-42, 47-52, 57, 60-67, 72, and 75-81 then were rejected under 35 U.S.C. 102(e) over U.S. Patent no. 6,606,663 to Liao et al. Applicant respectfully traverses this rejection, and courteously asks for its reconsideration.

Claims 1-8 and 13-15 are amended herein to recite a first server a first cache memory containing state information for sessions between the first server and one or more clients, and a second server employing a second cache memory containing a copy of the state information received from the first server. Applicant respectfully submits that these features of the invention are not taught or suggested by the Liao et al. patent.

The Liao et al. patent discloses a system for communication between wireless client devices 177 and Web server devices 202-207. The system uses a proxy server 114, which obtains credential information for a wireless client device from an initial message to a Web server device (or by specifically requesting the credential information from the wireless client device). The proxy server then acts an intermediary between the wireless client device and the Web server by intercepting messages from the wireless client device, inserting the credential information into the intercepted message, and then relaying the modified message to the Web server device.

Nothing in the Liao et al. patent would teach or suggest that the proxy server stores session information provided by the Web server device, or that the Web server devices stores session information provided by the wireless client device.

Similarly, the Liao et al. patent does not teach or suggest the features of the invention recited in claims 20-24. These claims recite a first server employing a first cache memory storing a first portion of a cache containing state information for sessions with one or more clients, and a second server employing a second cache memory with a second portion of the cache containing the state information for sessions with one or more clients.

The Examiner has suggested that the Web server devices taught in the Liao et al. patent must share credential information. Applicant respectfully submits that the Liao et al. patent does not disclose this feature. Moreover, even if two or more Web server devices did share credential information, the Liao et al. patent still would not teach or suggest sharing state information for client sessions, i.e., information reflecting the current state of particular communication sessions between client and servers.

Claims 27-35 and 40 recite obtaining state information corresponding to a session between a first server and a client, caching the state information with at least a second server, and resuming the session with the client from the second server using the cached state information. The Examiner has suggested that the Web server device taught in the Liao et al. patent caches credential information received from the proxy server. Applicant respectfully points out that nothing in the Liao et al. patent would support this assertion. If the Web server device did not already possess the required credential information (before receiving it from the proxy server), the

Web server device would be unable to authenticate communications relayed by the proxy server from a client device.

The Liao et al. patent likewise does not teach or suggest the features of the invention recited in claims 41, 42, 47-52 and 57. As amended herein, these claims recite initiating, from a first server computer, a communication session with a client computer, and transmitting state information reflecting the communication session between the first server computer and a client computer from the first server computer to a second server computer, so that the second server computer can resume the communication session with the client computer using the state information. Applicant respectfully points out that the proxy server disclosed in the Liao et al. patent does not create a communication session with a wireless client device that is then resumed by the Web server device. Instead, the proxy server acts only as an intermediary for a communication session between the Web server device and the wireless client device.

Claims 60-67 and 72 then recite receiving first state information from a first server computer reflecting a first communication session between the first server computer and a first client computer, receiving second state information from a second server computer reflecting a second communication session between the second server computer and a second client computer, receiving a request for the first state information from a third server computer, and transmitting the first state information to the third server computer, such that the third server computer can employ the first state information to reestablish the first communication session with the first client computer. These features are simply not taught or suggested by the Liao et al. patent.

The Examiner has suggested that column 8, lines 42-62 of the Liao et al. patent disclose the subject matter of the invention recited in these claims. Applicant respectfully points out that this portion of the Liao et al. patent teaches only that the proxy server detects credential information in a message from a wireless client device, stores this credential information, and then inserts this credential information when relaying subsequent messages from the wireless client device to the Web server device. Nothing in this passage even mentions communication between a client and a third server.

Lastly, Applicant respectfully submits that nothing in the Liao et al. patent would teach or suggest the features of the invention recited in claims 75-81. These claims recite a plurality of server computers, each server computer employing state information reflecting a communication session with an associated client computer, a cache repository for storing a cache containing the state information for each of the plurality of server computers, and a plurality of cache memories, each cache memory being associated with one of the plurality of server computers and storing only a portion of the cache stored in the cache repository. Nothing in the Liao et al. patent would teach or suggest both a cache storing state information for multiple client/server communication sessions and multiple cache memories that each store a portion of the information stored in the repository. The Examiner has suggested that the proxy server disclosed in the Liao et al. patent provides these features. Applicant respectfully points out, however, that the proxy server of the Liao et al. has only a single credential cache 214.

Applicant therefore submits that the Liao et al. patent does not teach or suggest the features of the invention recited in any of claims 1-8, 13-15, 20-24, 27-35, 40-42, 47-52, 57, 60-

67, 72, and 75-81. It is therefore requested that the rejection of these claims be withdrawn.

Next, claims 9-12, 36-39, 53-56, 68-71, and 82-85 were rejected under 35 U.S.C. §103 over the Liao et al. patent in view of U.S. Patent Application No. 2002/0083148 to Shaw et al.. Applicant respectfully traverses this rejection, and asks for its reconsideration as well.

Applicant courteously urges that one of ordinary skill in the art would not have been led to combine the teachings of the Liao et al. patent with the Shaw et al. application in the manner suggested by the Examiner. The Examiner has asserted that

It would have been obvious...to modify Liao to include caching personalized content, such as billing addresses purchase history and financial transactions, as taught by Shaw to reduce latency by caching information that will likely be requested in high bandwidth activities. (See Office Action, page 20, lines 1-4.)

Applicant respectfully points out that the Liao et al. patent discloses a proxy server positioned between a client device and a Web server device. This proxy server acts to reduce the amount of data transmitted by the client wireless device. Nothing in the Liao et al. device suggests the use of the proxy server to reduce latency time.

Moreover, the proxy server acts only to relay messages between the client device and the server device. Accordingly, it is unclear how modifying the proxy server to cache personalized data would reduce latency time, as the cached information presumably would still need to be processed by the Web server device or the client device. Applicant therefore submits that the asserted combination of the Liao et al. patent with the Shaw patent application is based upon impermissible hindsight, and asks that the rejection of claims -12, 36-39, 53-56, 68-71, and 82-85 based on this combination be withdrawn.

The Examiner then rejected claims 16, 25, 58, 73 and 86 under 35 U.S.C. §103 over the Liao et al. patent in view of "The Authoritative Dictionary of IEEE Standard Terms, 7th Edition, 2000, pages 505-506. Similarly, claims 17, 26, 59, 74, and 87 were rejected under under 35 U.S.C. §103 over the Liao et al. patent in view of "The Authoritative Dictionary of IEEE Standard Terms, 7th Edition, 2000, pages 505-506, and in further view of "Hashing Concepts And The Java Programming Language," by Robert Uzgalis, 1996, pages 1-4. Applicant respectfully traverses both of these rejections, and asks for their reconsideration.

As explained in detail above, the Liao et al. patent does not teach or suggest the various features of the invention recited in claims 16, 17, 25, 26, 58, 59, 73, 74, 86, and 87. It is respectfully submitted that nothing in either the IEEE Dictionary or the Uzgalis article would remedy the noted omissions in the Liao et al. patent. Applicant therefore urges that no combination of the Liao et al. patent, the IEEE Dictionary and the Uzgalis article could teach or suggest the features of the invention recited in any of claims 16, 17, 25, 26, 58, 59, 73, 74, 86, and 87, and asks that the rejection of these claims be withdrawn.

Lastly, claims 18, 19, and 43-46 were rejected under 35 U.S.C. §103 over the Liao et al. patent in view of U.S. Patent No. 6,167,438 to Yates et al. Applicant respectfully traverse this rejection, and requests its reconsideration. More particularly, Applicant submits that one of ordinary skill in the art would not have been led to combine the teachings of the Liao et al. and Yates et al. patents in the manner proposed by the Examiner.

In making this rejection, the Examiner states:

It would have been obvious...to modify Liao to include using a multicast

as taught by Yates to update the caches to allow for a quicker response to a request by a client which would increase the overall speed of the system. (See Office Action, page 22, lines 18-21.)

Applicant respectfully points out that multicasting is used to transmit information to multiple recipients simultaneously. Thus, using multicasting to transmit messages from a wireless client to multiple proxy servers would provide no advantages over the arrangement expressly disclosed in the Liao et al. patent. Similarly, using multicasting to relay client messages from a proxy server to multiple Web server devices would not provide advantages over the arrangement expressly disclosed in the Liao et al. patent. In particular, sending the same information to multiple destinations simultaneously would not impact the operation speed of the system taught in the Liao et al. patent. Applicant therefore urges that the combination of the Liao et al. patent with the Shaw et al. patent is improper, and asks that the rejection of claims 18, 19, and 43-46 be withdrawn.

In view of the above amendments and remarks, Applicants respectfully submit that all of the claims are allowable, and that this application is therefore in condition for allowance. Applicants courteously ask for favorable action at the Examiner's earliest convenience.

Respectfully submitted,

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IN THE DRAWINGS:

Applicant is amending Figure 1 herein to include the label "Prior Art." An amended copy of Figure 1, marked "Substitute Sheet," is attached hereto. Applicant also has attached a copy of Figure 1 as originally filed with this change marked thereon in red ink. The Examiner's approval of this drawing change is respectfully requested.